APPENDIX

Determination of the time spent in each menopause stage: To estimate rates of change in BMD within each of the 4 stages of the transition we created 4 separate time variables. For each woman, at each visit, we determined the amount of time that the woman had spent in each stage since baseline. Dividing the total time since baseline between the 4 menopausal stages required information on when each woman transitioned from one status category to the next. Because we cannot pinpoint exactly when the transition between menopausal stages occurs, the timing of each transition was determined via an algorithm. This algorithm utilized all available data regarding menstrual bleeding, assigned menopausal stage, and DXA scan date for each woman at each study visit.

For women who became postmenopausal, all time after their final menstrual period (FMP) was allocated to the postmenopause. All observed time before the FMP was allocated to pre-, early peri- and late perimenopause. Cumulative time in premenopause was set to zero for participants who were early perimenopausal at baseline. The timing of transitions between menopausal stages was determined as follows:

1. If a woman was classified as premenopausal at one visit and early perimenopausal at the next, the transition from pre- to early peri-menopause was assumed to occur midway between the two visits.
2. If a woman was classified as early perimenopausal at one visit and late perimenopausal at the next we used menstrual bleeding data to identify the earliest and latest possible dates at which the transition between stages could have occurred. The transition was then estimated to have occurred at the midpoint of these two dates.
3. If a woman was classified as late perimenopausal at one visit and postmenopausal at the next the transition between the two stages occurred at the date of her FMP.

Algorithms of a similar nature were used to determine the transition between stages for participants who transitioned across 2 menopause stages between consecutive visits. If a participant missed 2 or more consecutive visits, and over that period her menopausal stage changed, then her data were censored from the analysis from that point on.